Statewide Cubes User's Manual

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IDAHO BUSINESS INTELLIGENCE SOLUTION

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What is IBIS?



BIS (Idaho Business Intelligence Solution) is a multi-agency effort to provide a business intelligence and data warehouse solution for the two legacy mainframe systems – STARS (Financial) and EIS (HR/Payroll).

IBIS Allows You to

- Access and analyze accounting data (STARS)
- Access and analyze payroll data (EIS)
- Customize accounting and payroll reports
- View public reports in your organization
- Create and edit ad hoc reports
- Schedule and distribute reports

IBIS Includes

Cognos ReportNet – a reporting solution designed to address the challenges inherent in enterprise-scale reporting. ReportNet has a Web based architecture designed for scalability, availability, and openness. It includes the programs: Query Studio and Report Studio.

Query Studio – Query Studio is the ad hoc reporting tool for Report Net, the Web based reporting solution. In Query Studio, you can:

- **View Data** Connect to a data source to view data in a tree hierarchy. Expand the query subjects to see query item details.
- **Create Reports** Use the data source to create reports, which you can save and reuse. You can also use an existing report to create a new report.
- Change the Appearance of Reports Improve the layout of your report. For example, you can create a chart, add a title, or reorder columns for easy comparison.
- Work With Data in a Report Use filters, summaries, and calculations to compare and analyze data.

Report Studio – Report Studio is a Web based tool which adds functionality to Query Studio that professional report authors use to build sophisticated, multiple-page multiple-query reports against multiple databases.

Cognos PowerPlay – is an OLAP (Online Analytical Processing) tool that lets users analyze large amounts of data with the click of a mouse. This gives agency managers the ability to slice and dice data in Statewide Cubes to quickly discover and address problems within their agency.

Manual Purpose



Overview of Statewide Cubes

This user's manual was created to give Statewide Cube users an overview of the basic functionalities and design of Statewide Cubes.

Statewide Cubes are created by the Office of the State Controller and published for state agencies use. They allow agencies to explore the interactions between different dimensions of EIS and STARS information.

Using Statewide Cubes, agencies can:

- Explore information
- Compare data
- Add calculations
- Show actual values, percentages or currencies
- Filter data
- Zero suppress (80/20 suppress), highlight, and sort values
- Choose the type of display
- Control formatting and layout
- Drill down to lower-level categories and to details
- Export, save, print, or bookmark reports

Opening Statewide Cubes



From the *Cognos Connection Portal*, click on the *State of Idaho Public Folders* tab.

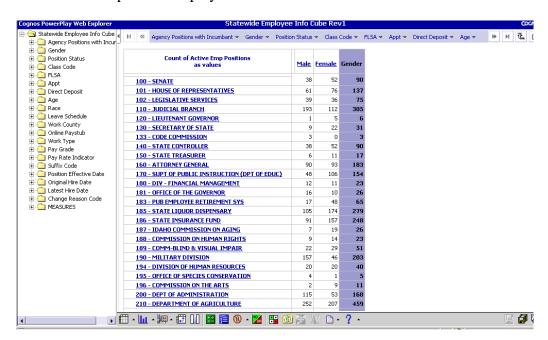


Select the Statewide Cubes package. Statewide Cubes

You will then have the option to choose from a list of cubes. For this tutorial, open *Employee Info Cube Rev1*.

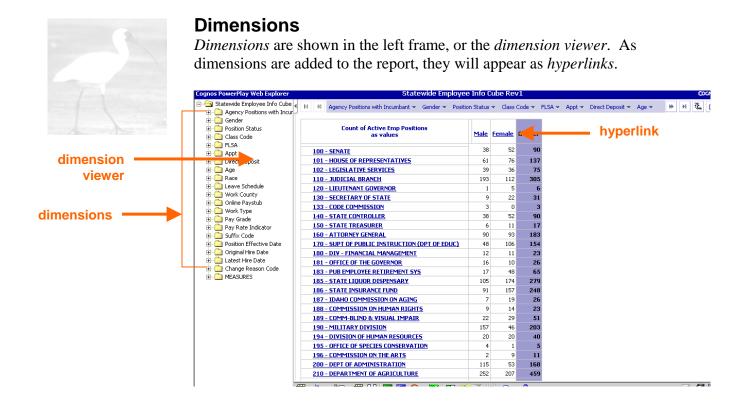


The cube will open and display similar to the view shown below.



Note: The report author sets the filters and settings that can be selected. You may not have access to all of the filters and settings that will be used in this tutorial.

Statewide Cube Components

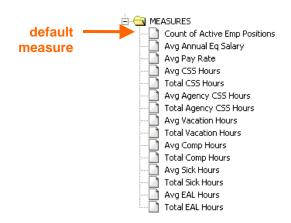


Measures

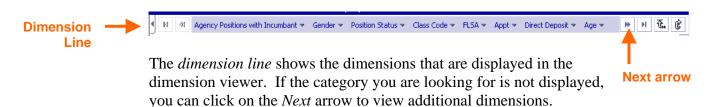
Measures are quantifiable amounts built into a cube. Measures may be a summary of information or calculations.

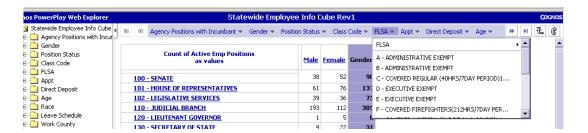
Note: PowerPlay uses the first measure in the list of measures as the default.

This cube has 15 measures available.

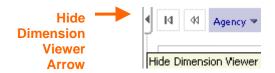


Dimension Line





You can choose to hide the dimension viewer so only the dimension line is displayed by clicking on the *Hide Dimension Viewer* arrow.



Display Toolbar

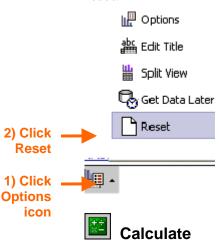
The *display toolbar* allows you to select different displays, apply suppression, and export or save a report.



Display Toolbar Icons



To be redirected to the original report, click the *Options* icon and click reset.



The following calculations can be done in Statewide Cubes:

add

subtract

multiply

divide

percent

percent of base

cumulative percent

rollup

exponentiate

accumulate

forecast

To add a calculation, right-click the row heading or column heading that the calculation will be preformed on, and then click *Insert Calculation*. The Calculation icon can also be used.



To remove rows or columns containing all zeros, click the Zero Suppression icon.

80/20 Suppression

Use the 80/20 Suppression icon to remove rows or columns whose absolute values are not in the top 80% of results. The removed rows or columns will be summarized into a single row or column that will be named "other." Data for the cells will be sorted in descending order and an absolute value total is calculated. The sorted values are added until the

cumulative total is eighty percent of the total. If the last value added to the cumulative total appears in more than one cell, all those cells are considered part of the 80%.



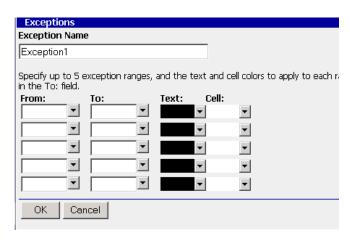
Custom Exception Highlighting

Custom Exception Highlighting can be applied to all cell types, including calculations, calculated categories and measures.

When the Custom Exception Highlighting icon is clicked, the screen below will be displayed. The on screen instructions say, "To apply an exception, select a row, column or measure in the crosstab." After you click the appropriate row, column or measure, click *Add...*



Next, an additional screen will open that will allow the exceptions to be defined. The exception can be named under *Exception Name*, and the *From*: and *To*: fields can be typed in. Select the *Text*: and *Cell*: colors that will be used to identify these situations.



Value ranges are inclusive.

These definitions are stored so the exceptions will be available when you open the report.

Up to 20 custom exceptions can be defined and each of them can have up to five value ranges. These will appear in the *Defined Exceptions* list.

Exceptions **Exception Name** Exception1 Specify up to 5 exception ranges, and the text and cell colors to Select minimum in the To: field. From: Text: Cell: and maximum values from drop down menu ▾ OΚ Cancel

Minimum and Maximum values can be selected from the drop down menu.

Custom exception definitions can be edited and deleted. Changes can be made to the range values specified, their characteristics or the name.



Click *Delete* to erase an existing exception. If you delete an exception that is currently being applied, the display will refresh automatically.

To delete a custom exception definition, select it from the Defined Exceptions list and click Delete. When you delete a custom exception that is currently applied, your display refreshes dynamically.

Custom Exception must be applied before it will appear in the report. Only one custom exception definition for a particular cell can be used at a time. When you apply an exception to a column, a row, or to the whole report, any exception that was previously applied to the same selection will be removed.

If a cell is at an intersection of two defined custom exceptions, the most recently applied exception will be visible for that cell.

Custom exceptions can only be used in a crosstab view. They can be defined in any view, but Statewide Cubes will ignore them.

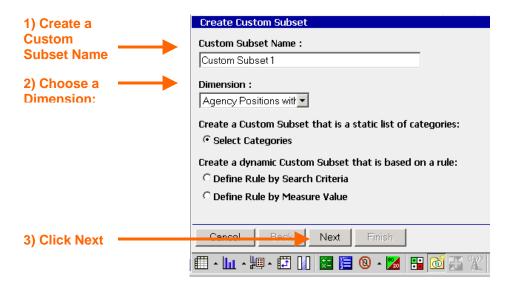


Custom Subset

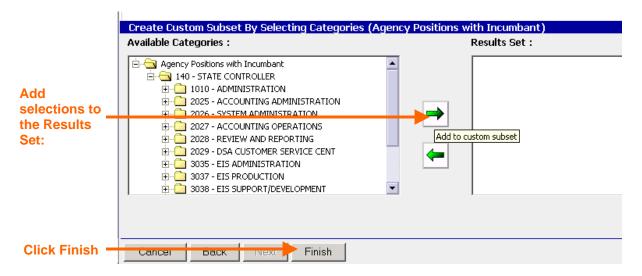
A *Custom Subset* can be created, named and added as a link if the category you choose is in the report.

Subsets can be used as filters if they are not displayed in the report.

When you click the Custom Subset icon, the screen below will open.



You need to create a *Custom Subset Name*: and choose the *Dimension*: and click *Next*. A screen similar to this will open.



Make your selections for the desired results and add them to the *Results Set:*, Click *Finish*.

The report will open and be filtered, giving you the results you selected.

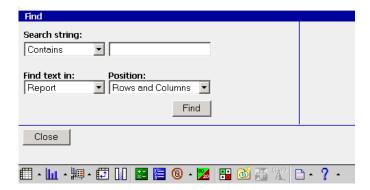
Subsets can be created from items in the report by right clicking the categories you would like to create the subset on.



Subsets can be removed by using the *Reset* button in the upper-right corner of the screen.



The current report or cube can be searched to find specific information in your data. To use search, click the arrow to the right of the *Help* icon on the toolbar, and then click Find.



Select the Search string: Contains, Begins with or Ends with and type the text you would like to search for. Choose whether to Find text in: a Report or a Cube and choose whether to search Rows, Columns, or Rows and Columns under *Position*:. Searches can be limited to a particular dimension.



Return to Source

Click Return to Source and you will be redirected to the Cognos Connection Portal.

Inserting Data



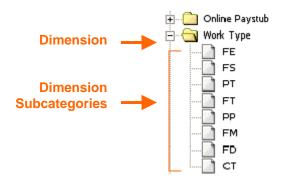
There are a number of ways you can view information and perform actions on the data in Statewide Cubes.

Each of the dimensions listed can be expanded to show specific information by clicking on the plus + sign.

Viewing and Inserting a Dimension



Remember, when inserting dimensions, if the dimension is clicked, it will add all of the dimension sub categories. If a dimension subcategory is picked, only that specific item will be added.



For Example: If the dimension for the category Work Type is added, the results will display all work types like the example below.

	Work Type	\$58,310	\$45,174	
	CT	\$0	\$0	
	<u>FD</u>	\$0	\$0	
	<u>FM</u>	\$0	\$0	
	<u>pp</u>	\$0	\$2,139	
	<u>FT</u>	\$0	\$0	
	PT	\$0	\$14,560	
	<u>FS</u>	\$58,310	\$49,064	
2-LEGISLATIVE SERVICES	<u>FE</u>	\$0	\$0	

If one of the dimension sub categories, such as PT is selected, the results will only display the PT work types in the report. See the example below.

100-SENATE	<u>PT</u>	\$0	\$18,596
101-HOUSE OF REPRESENTATIVES	<u>PT</u>	\$0	\$0
102-LEGISLATIVE SERVICES	<u>PT</u>	\$0	\$14,560

Adding Dimensions

Dimensions can be added by:

- 1. **Drag and Drop.** You will get different results depending on where you drag and drop data.
- 2. **Right Click.** Options selected from right clicking will determine where the category will be inserted.

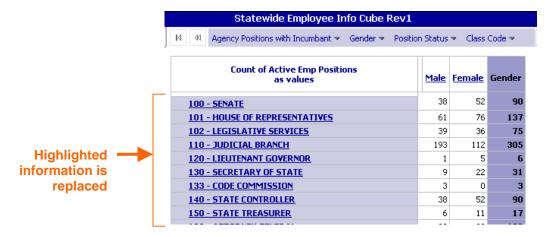
Drag and Drop



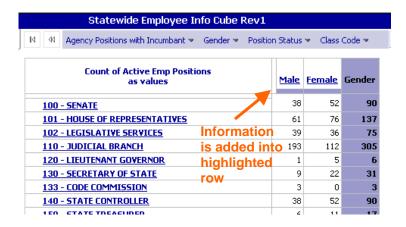
Pointer A Pointer B

When you drag and drop you will notice the pointer will either look like pointer A or pointer B.

Pointer A will replace the blue section that is highlighted, with the information you have selected. See the example below.



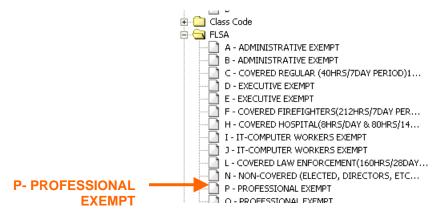
Pointer B will insert the information you have selected in the column or row that is highlighted. See the example below.



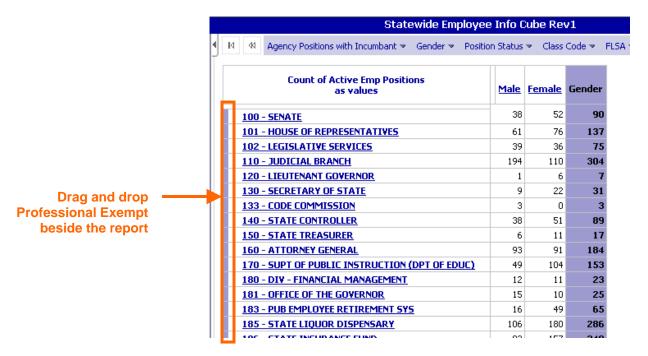
This next section will take you through four examples of different results achieved by using various methods of inserting data.

Method 1: Drag and Drop Beside the Report

We will use P-PROFESSIONAL EXEMPT in this exercise.



Drag and drop P- PROFESSIONAL EXEMPT on the left side of the report so you get a long highlighted column like the example below.

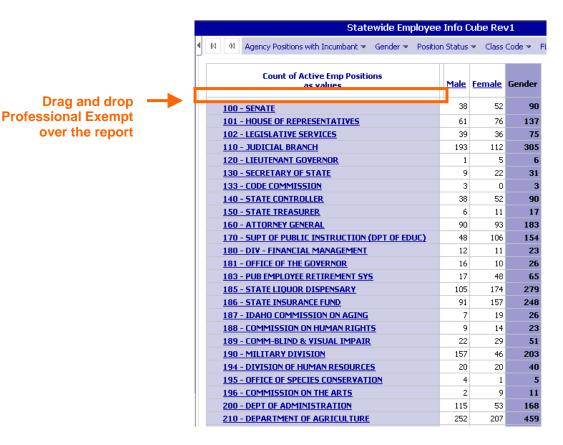


The report will show:

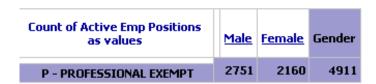
С	ount of Active Emp Positions as values	<u>Male</u>	<u>Female</u>	Gende
P - PROFESSIONAL EXEMPT	100 - SENATE	0	0	1
	101 - HOUSE OF REPRESENTATIVES	0	0	1
	102 - LEGISLATIVE SERVICES	25	16	4
	110 - JUDICIAL BRANCH	0	0	1
	120 - LIEUTENANT GOVERNOR	0	0	1
	130 - SECRETARY OF STATE	0	0	1
	133 - CODE COMMISSION	0	0	
	140 - STATE CONTROLLER	0	1	
	150 - STATE TREASURER	0	0	
	160 - ATTORNEY GENERAL	75	35	11
	170 - SUPT OF PUBLIC INSTRUCTION (DPT OF EDUC)	28	37	6
	180 - DIV - FINANCIAL MANAGEMENT	2	0	
	181 - OFFICE OF THE GOVERNOR	1	1	

Method 2: Drag and Drop Over the Report

Drag and drop P- PROFESSIONAL EXEMPT over the report.

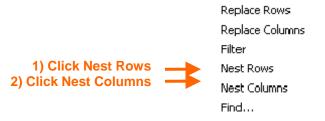


The cube will change and only show the average.

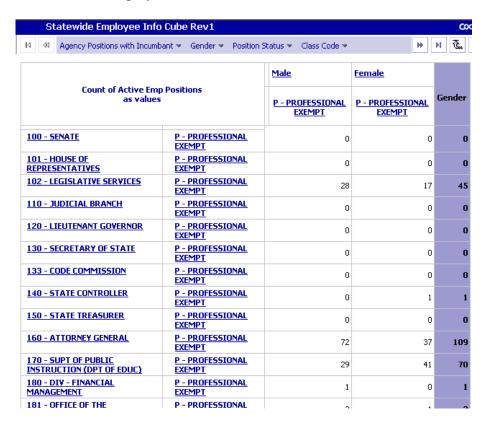


Method 3: Right Click

Right click on P- PROFESSIONAL EXEMPT and add it as a Nested Row and also as a Nested Column by clicking *Nest Rows* and *Nest Columns*.

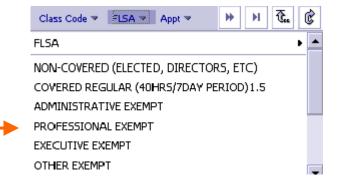


The cube will display similar to the view shown below.



Method 4: Add from Dimension Line

Add the PROFESSIONAL EXEMPT dimension from the dimension line across the top of the report. This will filter on that selection:



Add PROFESSIONAL EXEMPT from the dimension line

When filtering on PROFESSIONAL EXEMPT the cube should look like this:

Count of Active Emp Positions as values	Male	<u>Female</u>	Gender
<u>100 - SENATE</u>	0	0	0
101 - HOUSE OF REPRESENTATIVES	0	0	0
102 - LEGISLATIVE SERVICES	25	16	41
110 - JUDICIAL BRANCH	0	0	0
120 - LIEUTENANT GOVERNOR	0	0	0
130 - SECRETARY OF STATE	0	0	0
133 - CODE COMMISSION	0	0	0
140 - STATE CONTROLLER	0	1	1
150 - STATE TREASURER	0	0	0
160 - ATTORNEY GENERAL	75	35	110
170 - SUPT OF PUBLIC INSTRUCTION (DPT OF EDUC)	28	37	65
180 - DIV - FINANCIAL MANAGEMENT	2	0	2
181 - OFFICE OF THE GOVERNOR	1	1	2
183 - PUB EMPLOYEE RETIREMENT SYS	1	1	2
185 - STATE LIQUOR DISPENSARY	0	0	0
186 - STATE INSURANCE FUND	22	9	31
187 - IDAHO COMMISSION ON AGING	0	0	0
188 - COMMISSION ON HUMAN RIGHTS	0	0	0
189 - COMM-BLIND & VISUAL IMPAIR	0	0	0
190 - MILITARY DIVISION	11	3	14
194 - DIVISION OF HUMAN RESOURCES	0	0	0
195 - OFFICE OF SPECIES CONSERVATION	2	0	2
196 - COMMISSION ON THE ARTS	1	4	5
200 - DEPT OF ADMINISTRATION	8	2	10
210 - DEPARTMENT OF AGRICULTURE	18	10	28

Note: There is no undo, but the back button on the browser works.

Additional Functions



Drill Down

To drill down a level within a dimension, click the column-heading hyperlink. The next level within the cube will be displayed.



For example: by clicking on the Legislative Services hyperlink, the pay locations for that agency will be displayed.



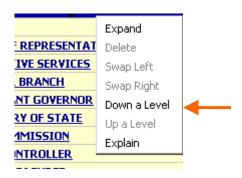
The next drill down would take you to employees within each of the pay locations.

You can also drill down using the dimension viewer and the left mouse button or the right mouse button.

The light blue bar with the black arrow will display different results depending on if you click it with the left mouse button or the right mouse button.

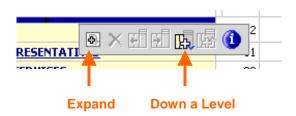


Using the Right Mouse Button



Choosing *Down a Level* will drill to the next level and display all categories that make up that level. In this case, each pay location within each agency would be displayed.

Using the Left Mouse Button



Expand – will display the next level as an additional column within the report.

Down a Level – will display the next level (in this situation, pay location)

Let's compare them:

Expand

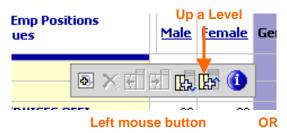
101-HOUSE OF	:HOUSE	\$16,960	\$21,390
REPRESENTATIVES	101-HOUSE OF REPRESENTATIVES	\$16,960	\$21,390
102-LEGISLATIVE SERVICES	01:LEGISLATIVE SERVICES OFFI	\$58,295	\$47,143
	06:PERFORMANCE EVALUATIONS	\$58,432	\$34,148
	102-LEGISLATIVE SERVICES	\$58,310	\$45,174

Down a Level

:SENATE	\$15,560	\$23,929	\$17,701
:HOUSE	\$16,960	\$21,390	\$19,369
01:LEGISLATIVE SERVICES OFFI	\$58,295	\$47,143	\$53,176
06:PERFORMANCE EVALUATIONS	\$58,432	\$34,148	\$44,941
:JUDICIAL BRANCH	\$72,479	\$48,738	\$64,173

From either of these views, drilling down or expanding to the next level would display employee information.

When you have drilled into a report, you can use both methods discussed above. There is also an option to go *Up a Level*.





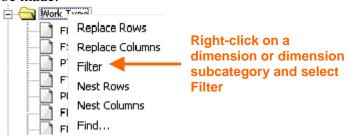
Right mouse button

Note: You can add additional dimensions at any time, to further filter your report or to find additional information.

Filter

Adding a Filter

Filters can be done at the dimension or dimensions subcategory levels. To filter, right-click on a dimension or dimension subcategory, and then select *Filter*. The dimension or subcategory must be displayed in the existing report before it can be filtered on. If one of the other dimensions is selected, the report will appear to be doing a refresh, but no changes will be made.



Removing a Filter

Removing a filter can only be done in this cube by deleting the category from the report.

Normally, all filters can be removed by clicking the Reset Dimensions icon on the dimension line.

Nesting Categories

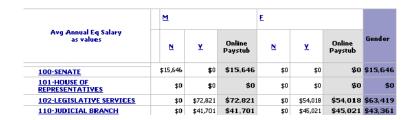
There are multiple ways of accomplishing nesting. You can drag and drop or right-click.

Drag and Drop

Put the dimension you want to nest into the column or row where you would like the information further defined.

Right Click

Right-click will also give you options to "Nest Row" or "Nest Column" In the example below, Pay Stub Switch is nested in the Gender Column.



Note: As you drag the category over the nest level area, the area becomes highlighted.

To remove Nested Categories right-click the level selector area for the nested category, and click Delete.

Sorting Values

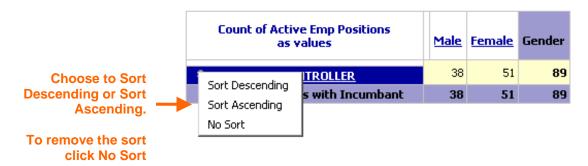
Row and column values can be sorted in ascending or descending order.

Data will remain sorted until you drill down or drill up.

Select the row or column you want to sort. That row or column will become highlighted and the *Sort* icon will appear in the row or column heading.



Click the icon, and choose the *Sort Ascending* or *Sort Descending*. To remove the sorting, click the Sort icon, and then click *No Sort*.



Training & Contact Information



Training

For additional information or to take a Quick Tour go to Help. The Quick Tour is located under Contents in Help.



Contact Information

If you have problems, please contact the Helpdesk at 334-4808 or by e-mail at scohelpdesk@sco.idaho.gov

Patrick Hodges Project Leader (208) 334-3100 phodges@sco.idaho.gov

Patti Everill IBIS Trainer (208) 334-2394 SCOtrainer@sco.idaho.gov

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